# Digital Economy and Society Index<sup>1</sup> 2015<sup>2</sup>

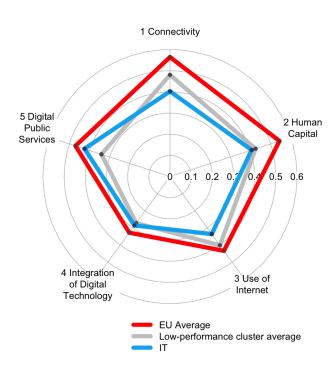
## **Country Profile**

### Italy

Italy has an overall score<sup>3</sup> of **0.37** and ranks **25<sup>th</sup>** out of the 28 EU Member States. In the past year, Italy has made progress in its businesses' Integration of Digital Technologies (mostly eBusiness solutions like ERP and Electronic Information Sharing); however, Italian businesses are still largely non digital and could benefit from using eCommerce more (only 5.1% of SMEs is selling online, while turnover from eCommerce for Italian enterprises is just 4.9% of total turnover). Italy also lags behind on Connectivity (where fast internet was only available to 36% of households in December 2014, the second worst coverage in the EU; only 51% of households subscribe to fixed broadband, the lowest percentage in the EU; and only 3.8% of broadband subscriptions are for speeds above 30 Mbps). Lastly, Italy needs to make progress on the demand side, where low levels of digital skills (Italy has one of the lowest percentage of regular Internet users in the EU (59%), and 31% of the Italian population has never used the Internet) and trust (42% of Internet users makes use of online banking and 35% shops online) seem to be holding back the development of its digital economy. Italy scores close to the EU average in Digital Public Services; however, use of eGovernment is still low, partly because of online public services not being sufficiently developed and partly because of digital skills issues.

Italy falls into the cluster of **low-performance**<sup>4</sup> countries, where it performs below average.

	Italy		Cluster	EU
	rank	score	score	score
DESI 2015	25	0.37	0.39	0.48
DESI 2014	25	0.33	0.33	0.45



<sup>&</sup>lt;sup>1</sup> The Digital Economy and Society Index (DESI) is a composite index developed by the European Commission (DG CNECT) to assess the development of EU countries towards a digital economy and society. It aggregates a set of relevant indicators structured around 5 dimensions: Connectivity, Human Capital, Use of Internet, Integration of Digital Technology and Digital Public Services. For more information about the DESI please refer to <a href="http://ec.europa.eu/digital-agenda/en/digital-agenda-scoreboard">http://ec.europa.eu/digital-agenda/en/digital-agenda-scoreboard</a>

<sup>&</sup>lt;sup>2</sup> The DESI 2015 is constructed from indicators referring mostly to the calendar year 2014 (except when data is not available for that calendar year, in which case the latest prior data was used).

<sup>&</sup>lt;sup>3</sup> DESI scores range from 0 to 1, the higher the score the better the country performance.

<sup>&</sup>lt;sup>4</sup> In the DESI 2015, the low-performance cluster of countries comprises Bulgaria, Cyprus, Czech Republic, Greece, Croatia, Hungary, Italy, Poland, Romania, Slovenia and Slovakia.

## 1 Connectivity

1 Connectivity	Italy		Cluster	EU	
1 Connectivity	rank	score	score	score	
DESI 2015	27	0.4	0.40	0.50	
DE312015	21	0.4	0.48	0.56	

Connectivity is one of the two DESI 2015 dimensions where Italy performs worse. With an overall Connectivity score of 0.4, the country ranks 27<sup>th</sup> among EU countries. However, on the positive side, fixed broadband is available to almost all Italian population and mobile broadband take-up is close to average.

	Italy					EU
	DE	DESI 2015			2014	DESI 2015
	value	•	rank	value	rank	value
1a1 Fixed BB Coverage % households	<b>99%</b> (2014)	•	11	<b>99%</b> (2013)	13	<b>97%</b> (2014)
1a2 Fixed BB Take-up % households	<b>51%</b> (2014)	↑	28	<b>50%</b> (2013)	28	<b>70%</b> (2014)
1b1 Mobile BB Take-up Subscribers per 100 people	<b>71</b> (2014)	↑	9	<b>62</b> (2013)	14	<b>72</b> (2014)
<b>1b2 Spectrum</b> % of the target for spectrum to be harmonised at EU level	<b>67%</b> (2014)	→	20	<b>67%</b> (2013)	18	<b>70%</b> (2014)
1c1 NGA Coverage % households, out of all households	<b>36%</b> (2014)	♠	27	<b>21%</b> (2013)	28	<b>68%</b> (2014)
<b>1c2 Subscriptions to Fast BB</b> % of subscriptions >= 30Mbps, out of fixed BB subscriptions	<b>3.8%</b> (2014)	↑	26	<b>0.88%</b> (2013)	28	<b>26%</b> (2014)
<b>1d1 Fixed BB Price</b> % individual gross income spent for the cheapest standalone Fixed Broadband subscription (lower values are better)	<b>1.8%</b> (2014)	¥	20	<b>1.6%</b> (2013)	14	<b>1.4%</b> (2014)

Italy has almost completed its coverage of basic broadband.

However, Italy has two main challenges in Connectivity. First, it needs to improve coverage of Next Generation Networks, which in December 2013 reached only 36% of households, the second worst coverage in the EU. Second, it needs to increase the number of broadband subscribers, particularly of fast broadband: only 51% of households subscribe to fixed broadband (the lowest percentage in the EU) and only 3.8% of broadband subscriptions are for speeds above 30 Mbps.

One cause for the low take-up of fixed broadband in Italy might be the popularity of mobile broadband (the 9<sup>th</sup> highest value in the EU). Another root cause could be the low level of internet use and digital skills (see next sections) which impact on the demand.

#### 2 Human Capital

2 Human Capital	lta	aly	Cluster	EU
2 Human Capitai	Rank score		score	score
DESI 2015	24	0.41	0.42	0.54
DESI 2014	24	0.38	0.35	0.52

With a Human Capital score of 0.41, Italy ranks 24<sup>th</sup> among EU countries, performing better than in the previous year (0.38).

	L	Italy				EU
		DESI 2015			2014	DESI 2015
	value		rank	value	rank	value
<b>2a1 Internet Users</b> % individuals (aged 16-74)	<b>59%</b> (2014)	↑	25	<b>56%</b> (2013)	25	<b>75%</b> (2014)
2a2 Basic Digital Skills % individuals (aged 16-74)	<b>47%</b> (2014)	↑	23	<b>43%</b> (2012)	24	<b>59%</b> (2014)
2b1 ICT Specialists % employed individuals	<b>2.4%</b> (2012)		17	<b>2.4%</b> (2012)	17	<b>2.8%</b> (2012)
<b>2b2 STEM Graduates</b> Graduates in STEM per 1000 individuals (aged 20 to 29)	<b>13</b> (2012)		22	<b>13</b> (2012)	22	<b>17</b> (2012)

In order to fully develop its digital economy and society, Italy needs to engage its citizens to use the Internet. Italy has one of the lowest percentage of regular Internet users in the EU (59%), and 31% of the Italian population has never used the Internet (the EU average is 18%). This means that one-third of the population cannot partake on the possibilities offered by the Internet, nor can they contribute to the digital economy.

Italy needs to address its severe digital skills gap. Digital skills are nowadays needed in every corner of the workforce, and the fact that only half of the Italian population does not possess digital skills even at basic levels can be an important barrier to the country's economic development. Italy has also a low percentage of population with a STEM (science, technology and mathematics) degree (1.3% of Italians aged 20-29 years), which is inadequate for an advanced economy in the digital era.

Finally, the share of ICT specialists<sup>5</sup> in the workforce (2.4%) is not far from the EU average (2.8%).

<sup>&</sup>lt;sup>5</sup> Broad definition taken from JRC (IPTS) "The evolution of EU ICT employment 2000-2012" Technical report (forthcoming): ISCO codes 25 and 35, plus ICT graduates in certain adjacent ISCO codes.

3 Use of Internet		aly	Cluster	EU
5 05e of internet	rank score		score	score
DESI 2015	26	0.34	0.4	0.43
DESI 2014	27	0.3	0.34	0.41

In terms of the propensity of individuals to use Internet services, Italy scores 0.34 (up from 0.3 last year) and ranks 26<sup>th</sup> among EU countries. Even though usage of the majority of online services has increased, it lags behind for what concerns online shopping and reading news.

		EU			
	DESI 20	)15	DESI	2014	DESI 2015
	value	rank	value	rank	value
<b>3a1 News</b> % individuals who used Internet in the last 3 months (aged 16-74)	60% ↓ (2014)	26	<b>68%</b> (2013)	18	<b>67%</b> (2014)
<b>3a2 Music, Videos and Games</b> % individuals who used Internet in the last 3 months (aged 16-74)	52% (2014)	12	<b>39%</b> (2012)	26	<b>49%</b> (2014)
3a3 Video on Demand % households that have a TV	<b>19%</b> → (2014)	19	<b>19%</b> (2013)	19	<b>41%</b> (2014)
<b>3b1 Video Calls</b> % individuals who used Internet in the last 3 months (aged 16-74)	38% (2014) ↑	18	<b>36%</b> (2013)	17	<b>37%</b> (2014)
<b>3b2 Social Networks</b> % individuals who used Internet in the last 3 months (aged 16-74)	58% (2014)	22	<b>54%</b> (2013)	23	<b>58%</b> (2014)
<b>3c1 Banking</b> % individuals who used Internet in the last 3 months (aged 16-74)	<b>42%</b> (2014) ↑	21	<b>37%</b> (2013)	21	<b>57%</b> (2014)
<b>3c2 Shopping</b> % individuals who used Internet in the last year (aged 16-74)	35% (2014) ↑	26	<b>32%</b> (2013)	25	<b>63%</b> (2014)

Italian Internet users engage in many online activities although less than the EU average. The consumption of digital content (i.e. music, videos and games) has increased substantially in the past year, making it a favourite activity with respect to the pattern of the EU average Internet user. On the contrary the reading of news online has fallen noticeably.

This could reflect the transition from an essentially free model to a freemium<sup>6</sup> model for news providers. The subscription to Video on Demand is suffering from an historical approach that has strongly favoured other channels of transmission (e.g. terrestrial and satellite television).

The use of online transactions (i.e. online banking and online shopping) has improved but the share of Internet users engaging in them is still inadequate. This is the key challenge for Italy in terms of Internet use by its citizens, because a digital economy is partly fuelled by its citizens' consumption in the online channel.

<sup>&</sup>lt;sup>6</sup> Freemium is a pricing strategy by which some of the news are freely available while access to the remaining ones is allowed only to paying subscribers.

#### **4 Integration of Digital Technology**

4 Integration of Digital Technology	lt	aly	Cluster	EU
	rank	score	score	score
DESI 2015	20	0.29	0.27	0.33
DESI 2014	23	0.21	0.24	0.3

Integration of Digital Technology by businesses is the dimension where Italy performs second best of all DESI 2015 dimensions: with a score of 0.29, (substantially up from 0.21 last year) Italy ranks 20<sup>th</sup> among EU countries. Italy's enterprises are making progress in adopting eBusiness solutions but need to better exploit the possibilities offered by eCommerce.

		EU			
	DESI 20	15	DESI 2	014	DESI 2015
	value	rank	value	rank	value
4a1 Electronic Information Sharing % enterprises (no financial sector, 10+ employees)	<b>37%</b> (2014)	10	<b>27%</b> (2013)	18	<b>31%</b> (2014)
<b>4a2 RFID</b> % enterprises (no financial sector, 10+ employees)	<b>4.6%</b> (2014)	12	<b>1.3%</b> (2011)	19	<b>3.8%</b> (2014)
4a3 Social Media % enterprises (no financial sector, 10+ employees)	<b>12%</b> (2014)	17	<b>11%</b> (2013)	21	<b>14%</b> (2014)
<b>4a4 elnvoices</b> % enterprises (no financial sector, 10+ employees)	<b>5.4%</b> ↓ (2014)	25	<b>6.7%</b> (2013)	24	<b>11%</b> (2014)
4a5 Cloud % enterprises (no financial sector, 10+ employees)	<b>20%</b> (2014)	5	n.a.	-	<b>11%</b> (2014)
<b>4b1 SMEs Selling Online</b> % SMEs (no financial sector, 10+ employees)	5.1% (2014)	28	<b>4.8%</b> (2013)	27	<b>15%</b> (2014)
4b2 eCommerce Turnover % turnover of SMEs (no financial sector, 10-249 employees)	<b>4.9%</b> (2014)	22	<b>4.8%</b> (2013)	23	<b>8.8%</b> (2014)
<b>4b3 Selling Online Cross-border</b> % SMEs (no financial sector, 10+ employees)	<b>4%</b> (2013)	24	<b>4%</b> (2013)	24	<b>6.5%</b> (2013)

The true challenge for Italian businesses is to take advantage of the possibilities offered by eCommerce to expand their markets or to become more competitive in their existing ones. These possibilities are even more important for SMEs which are put more under pressure by the economic crisis. But only 5.1 % of SMEs is selling online, the worse percentage in the EU28. Also turnover from eCommerce for Italian enterprises is not very relevant (4.9% of total turnover), being half of the EU Average (8.8%).

On the other hand, adoption of eBusiness solutions like ERP and Electronic Information Sharing is making progress with respect to previous year, both in absolute terms and relative to other EU countries. The adoption of these solutions is made more convenient by the availability of cheaper cloud-based alternatives. Indeed with 20% adoption of cloud solutions, Italy is at the forefront (5<sup>th</sup> place in the EU28) in the use of such technologies.

5 Digital Public Services	lt	aly	Cluster	EU
5 Digital Public Services	rank score		score	score
DESI 2015	15	0.42	0.34	0.47
DESI 2014	14	0.4	0.33	0.45

Digital Public Services is the dimension of DESI 2015 where Italy performs best ranking 15<sup>th</sup> among EU countries with a score of 0.42. However, use of eGovernment is still low, partly due to some insufficient development of online public services and part to digital skills issues.

	Italy					EU
	DESI 2015			DESI 2	DESI 2015	
	value		rank	value	rank	Value
<b>5a1 eGovernment Users</b> % individuals returning filled forms, out of Internet users in the last year (aged 16-74)	<b>18%</b> (2014)	↑	25	<b>17%</b> (2013)	21	<b>33%</b> (2014)
5a2 Pre-filled Forms Score (0 to 100)	<b>41</b> (2014)	↓	15	<b>48</b> (2013)	15	<b>45</b> (2014)
5a3 Online Service Completion Score (0 to 100)	<b>78</b> (2014)	♠	14	<b>77</b> (2013)	11	<b>75</b> (2014)
5a4 Open Data Score (0 to 700)	<b>485</b> (2014)		9	n.a.	-	<b>378</b> (2014)
5b1 Medical Data Exchange % General Practitioners	<b>31%</b> (2013)		12	<b>31%</b> (2013)	12	<b>36%</b> (2013)
5b2 ePrescription % General Practitioners	<b>9.2%</b> (2013)		15	<b>9.2%</b> (2013)	15	<b>27%</b> (2013)

Modern public services offered online in an efficient manner are a vehicle for reducing public spending as well as for efficiency gains for enterprises, citizens and the public administration itself. Italy faces a key challenge in online public services, since the gains from the supply of eGovernment solutions can be fully realised only with a high take-up. Although the low degree of online interaction of Italian citizen with public administrations (18% of Internet users, the 25<sup>th</sup> value in the EU 28) is mostly to be blamed to low digital skills, the administration can do more to improve the usability of its services. Indeed, the provision of pre-filled forms in online services has actually decreased in the last year (from 48 to 41), while efforts should go in the opposite direction. Also the fact many public services are not entirely available online may discourage non-expert users from climbing the learning curve for using those services.

Italy presents a decent, although improvable, performance in eHealth: 31% of GPs exchange data electronically (close to EU average of 36%), and 9.2% of GPs use ePrescriptions.

Finally, Italy has made substantial, and not only formal, progress, in implementing EU legislation on Open Data, as shown by its Open Data score (485, the 9<sup>th</sup> highest in EU28)